



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,527	11/10/2003	Koji Ito	4041J-000808	5406
27572	7590	12/07/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			FORD, JOHN K	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			3744	

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/705,527

Applicant(s)

ITO ET AL.

Examiner

John K. Ford

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/10/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 7, 8, 13-15, 17-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-12, 16 and 24-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3744

Applicant's response of October 10, 2006 has been studied carefully. As noted in the interview that took place 10/10/06, the new limitations necessitated a new search of the prior art. Rejections follow here. Further discussion of the original rejections is deemed moot in light of the new limitations and newly cited and applied prior art.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9, 10, 16 and 24-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 58-164417.

JP '417 clearly shows a main blower (22), heat exchanger unit (31 and/or 34), case (2), first passage (4), second passage (5 and 53), connection duct (6) and a sub-blower (51) in series with the main blower (22). Clearly the cross-section of the second passage immediately to the right of sub-blower 51 is very small compared to the cross-

Art Unit: 3744

section of duct 4. Therefore, the second passage must have a greater resistance to airflow. It is submitted that if the second passage didn't inherently have a greater resistance to airflow, then there would have been no need for the sub-blower 51. As well duct 6, reaching all the way to the back seat has a significant resistance to air flow.

Claims 1-5, 9, 10, 16 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 58-164417 as applied to claims 1-5, 9, 10, 16 and 24-28 are above, and further in view of JP 06-92135.

The examiner relies on a single sentence at the end of paragraph 0006, "Moreover, since the rear vent duct 16 had to be installed to the face outlet 15, there was a fault which a pressure loss becomes large in connection with the path of the rear vent duct becoming long, and causes a fall of blast weight [i.e. airflow]." What this demonstrates in reference to Figure 4 of JP 06-092135, is that a rear duct feeding air to a rear vent is known to have a higher air flow resistance than the corresponding front duct feeding air to the front vent because of its long length to reach the rear seats. Thus, if what the examiner maintains is inherent in JP '417 (the second passage must have a greater resistance to airflow) is challenged, it would certainly have been obvious to have sized the rear vent passage to have a higher air flow resistance than the front passageway because that is what is conventionally done as taught by JP 06-092135. Such sizing advantageously allows the rear duct to take up less room in the passenger compartment.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over either JP '417 or JP '417/Jp '135 as applied to claim 1 above, and further in view of JP 61-89114 or Hudson (USP 3,874,191) or Orr (USP 3,326,110).

To have used a dual fan set up as shown in JP '114, assigned to Denso, or Hudson or Orr in place of blower unit 51 of JP '417 or JP '417/Jp '135, to advantageously improve the amount and/or distribution of airflow through the second passage and/or to distribute air the right and left hand sides of the rear compartment of the vehicle would have been obvious to one of ordinary skill in the art.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '417 as applied to claim 1 above, and further in view of JP Utility Model 58-136813 (Figure 3).

JP '813 (Figure 3) teaches using two doors 23 and 21 rather than a single door 37 as shown in JP '417 to control flow in the bottom duct. To have used two doors (such as 21 and 23) in place of door 37 of JP '813 to advantageously permit a decrease the size of the HVAC unit would have been obvious to one of ordinary skill in the art. Regarding functional statements regarding intended manners of operation of these doors, these are not given patentable weight in assessing the patentability of the apparatus claimed. See MPEP 2114, incorporated here by reference.

Art Unit: 3744

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

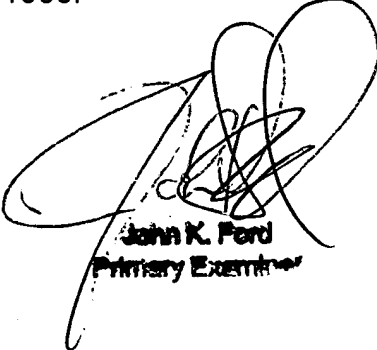
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John K. Ford  
Primary Examiner